



Naval Safety Center

LESSONS LEARNED



19-21

Soccer Goal Anchoring

There has been plenty of recent media attention on the hazards of concussions and traumatic brain injuries attributed to sports. While we normally think of these injuries occurring due to physical game play, there is an unrecognized hazard that deserves a high level of attention: soccer goal anchoring. It is a hazard in plain sight that is easily mitigated but often overlooked.

Soccer is a growing sport within the U.S, and is a great way to help Sailors, Marines, and their families maintain a healthy lifestyle while enjoying competition. Nearly every naval installation has athletic fields and many have portable soccer goals available for use. What's more, there are an estimated 500,000 soccer goals in use in the U.S. with the vast majority being movable and unsecured, posing the greatest danger. The average soccer goal can weigh up to 500 pounds. *When is the last time you looked at the soccer goal at your local field (or your kid's field) out in town?*



The Dangers

Soccer goal tip-over accidents injure an estimated 200 people every year. In the past 28 years, 42 deaths and 59 serious injuries were reported in the United States and Canada. In 2017 alone (the most recent data available), three tragic – and completely avoidable – mishaps occurred:

- A 15 year old was killed when the soccer goal post that he was hanging on tipped over and fell onto his head.
- A 9 year old playing soccer at school was killed when the goal collapsed on him, crushing his skull.
- High winds blew over a heavy metal soccer goal that struck and killed a 2-year-old girl.

***There are an estimated 500,000 soccer goals in the U.S.
The average goal can weigh up to 500 pounds.***

How to Protect Yourself (and others)

It is IMPERATIVE that ALL movable soccer goals are always anchored properly. A properly anchored or counterweighted soccer goal is much less likely to tip over. Remember to secure the goal to the ground (preferably at the rear of the goal), making sure the anchors are flush with the ground and clearly visible. There are several different ways to secure your soccer goal. The number and type of anchors to be used will depend on a number of factors, such as soil type and moisture content and total goal weight.

- **Auger style:** This style of anchor screws into the ground. A flange is positioned over the ground shoes (bar) and rear ground shoe (bar) to secure them to the ground. A minimum of two auger-style anchors (one on each side of the goal) are recommended. More may be required, depending on the manufacturer's specifications, the weight of the goal, and soil conditions.

SOCCKER GOAL ANCHORING

- **J-Hook Shaped Stake style:** This style is used when holes are not pre-drilled into the side or rear ground shoes (bars) of the goal. Similar to the peg or stake style, this anchor is hammered, at an angle if possible, directly into the earth. The curved, top portion of this anchor fits over the goal bar to secure it to the ground. Typically, two to four stakes of this type are recommended, depending on stake structure, manufacturers specifications, weight of goal and soil conditions. Stakes with larger diameters or textured surfaces have greater holding capacity.
- **Sandbags or Counterweights:** Sandbags or other counterweights can be an effective alternative on hard surfaces where the surface can not be penetrated by a conventional anchor (i.e., an indoor practice facility or artificial turf). The number of bags or weights needed will vary and must be adequate for the size and total weight of the goal being supported.

Lessons Learned / Key Takeaways

Portable soccer goals are found on and off base and are used by military, dependents, and civilians, including children. They can become a deadly object if not properly anchored or if allowed to be used as a climbing, swinging, or pull-up platform. You can prevent this completely avoidable tragedy.

1. Everyone is a safety officer.

When you are at the field, look at the goals. We can't expect "someone" to have verified all 500,000 soccer goals are anchored. The coach, the league, or the local safety professional *might* have checked it...but you don't want to bet your life (or your kids' lives) on it. When you are at the field, look at the goals. Tell the cognizant authority if it isn't safe. Don't be shy to speak up and say, "Don't climb on that soccer goal," or "That goal needs to be anchored before we can use it."

2. Ensure all soccer goals are properly anchored (Yes, you. See #1).

Using one of the anchoring methods above, all soccer goals should be properly anchored to minimize the likelihood of a tip over. Verify the anchors are replaced after mowing. Maintenance staff will remove anchors from soccer goals in order to move them so they can mow the grass around the goal. Make sure to instruct maintenance staff to replace soccer goal anchors after removing them and inspect the goals to make sure they are secured before any scheduled soccer activity begins.

3. Never allow anyone to climb, hang, or swing from a soccer goal (See #1).

Even a properly anchored soccer goal can tip over if enough weight is placed on the crossbar. 150-500 pounds will cause injury if it falls on someone, even an adult.

For additional help or information you can reach the Naval Safety Center Shore Safety Directorate at (757) 444-3520 (ext 7820) or via email at NRFK_SAFE_OSHFeedback@navy.mil.

References:

www.anchoredforsafety.org/incidents.html

<https://www.cpsc.gov/safety-education/safety-guides/sports-fitness-and-recreation/guidelines-movable-soccer-goals>

And remember, "Let's be careful out there"